

REMARKS

Reconsideration of this application is respectfully requested. Claims 1-4 are pending in this application and have been rejected. Those rejections set forth in the Office Action are respectfully traversed.

I. The Prior Rejection

The Examiner has maintained the previous prior art rejection of the claims as being obvious over the admitted prior art in view of Manohar patent.

II. Applicants' Response

Applicants' claimed invention is a refrigerant cycle apparatus which offers improved performance (28:9-20) and is less expansive to make (24:13-18). This is true because of the construction of the presently claimed invention in which

the micro-tube 104 of the inter cooler 151 and the fins 105 attached thereto have the same shapes as those of each of the microtubes 110 of the gas cooler 155 and the fins 105 attached thereto. That is, the inter cooler 151 of the intermediate cooling circuit 150 and the gas cooler 155 have substantially the same ventilation areas.

(18:2-8). This structure is *exemplified* in Fig. 3 in which the inter cooler 151 (of the auxiliary cooling circuit) is shown operating in parallel to the gas cooler 155. Because the fins and the microtubes of the respective coolers are shown as having substantially the same shape, the respective coolers have substantially the same ventilation area, as recited in the claims. Fluid from the gas cooler 155 goes to the external heat exchanger 160 and the evaporator 157 and back to the compressor 10, whereas fluid from the inter cooler 151 goes back directly to the compressor 10.

The Examiner has asserted that Manohar discloses heat exchanger 224a receiving heat transfer liquid that has passed through heat exchanger 224b. The Examiner then argues that the distance between the two heat exchangers would not affect the heat exchange operation (*i.e.*, ventilation) and comments that Applicants have not defined what is meant by the claim recitation “substantially the same ventilation area.” The Examiner’s implicit conclusion is that the disclosed heat exchangers have the same area.

Applicants respectfully submit that the Examiner is incorrect. There is nothing in Manohar to suggest that Figures 3 and 4 are to scale. *See Nystrom v. Trex Co.*, 374 F.3d 1105, 71 USPQ2d 1241, 1250 (Fed. Cir. 2004)(unless a patent expressly so states, its drawings are not be taken as being dimensionally accurate). In fact, as noted by the Examiner, the drawings are intended to be *schematics*, and thus not dimensionally accurate. With respect to the Examiner’s comment that “substantially the same ventilation area is not defined,” the above quoted passage from page 18 of the application, coupled with Figs. 3 and 5, show a clear definition.¹

More importantly, there is nothing within the Manohar patent (which shows a *sequential* flow of heat fluid through the two exchangers), to suggest the *parallel* flow which is recited by Applicants’ claims. For the reasons set forth in detail above, this rejection is respectfully traversed.

¹ The claim terms “substantial” and “substantially” have been repeatedly held proper in defining a claimed invention. *Deering Precision Instruments, L.L.C. v. Vector Distribution Systems, Inc.*, 347 F.3d 1314, 1323, 68 USPQ2d 1716, 1721-22 (Fed. Cir. 2003); *In re Mattison*, 509 F.2d 563, 184 USPQ 484 CCPA 1975).

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CONCLUSION

In view of the foregoing remarks, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.

If the Examiner believes that there are issues remaining to be resolved in this application, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite and complete prosecution of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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